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# Transition Issues when $PM_{10}$ and $SO_2$ Non-attainment Areas become subject to PSD

## 1. Increment Tracking

**a. Minor Source Baseline Date.** The minor source baseline date is the starting date for calculating $PM_{10}$ or $SO_2$ increment consumption. The minor source baseline date will be established when the first complete PSD application for primary $PM_{10}$ (not precursors) or $SO_2$ is submitted for a major source or major modification in each baseline area. The minor source baseline date cannot be triggered until after the area is designated attainment, and would be dependent on the timing of the first PSD application in the area.

When the minor source baseline date was triggered for TSP in the mid-1970's all 4 Wasatch Front Counties were designated nonattainment for TSP. There have not been any major sources or major modifications for primary $PM_{10}$ in Davis or Weber Counties since that time. Therefore, it appears that the minor source baseline date has not yet been triggered for any of the 4 counties. This will make increment tracking more straightforward and accurate because it would have been extremely difficult to determine emission changes since the mid-1970s in the populated area along the Wasatch Front. The minor source baseline date could be different for each of the counties depending on the modeled impact of the new or modified source. Minor source growth will consume increment after the baseline date.

**b. Major Source Baseline Date.** The major source baseline date is currently established as January 6, 1975 for both particulate matter and $SO_2$. This date was created to establish the baseline for clean areas, but does not address how to handle nonattainment areas that are redesignated to attainment. When the PSD program was created, an increment was established in clean areas to allow economic growth while also maintaining the good air quality in the area. Congress did not want all of the clean areas in the country to degrade to just below the level of the NAAQS. This overall goal does not work well when applied to Utah's nonattainment areas because the 1975 baseline date for major sources corresponds to a time when the areas were violating the NAAQS. An increment that is established at a level that violates the NAAQS has little value. A more consistent approach would be to apply the goals of the PSD program to new maintenance areas, and use the $PM_{10}$ and $SO_2$ increment as a way to allow economic growth in the area while also maintaining the improved air quality that has been achieved due to the $PM_{10}$ and $SO_2$ NAAQS.

> *DAQ recommendation:* The definition for "major source baseline date in R307-101-2 should be modified to establish the date of redesignation to attainment as the major source baseline date for $PM_{10}$ maintenance areas and $SO_2$ maintenance areas. This approach would apply to all 4 Wasatch Front Counties, because these counties were all originally nonattainment for TSP. Davis County's major source baseline date would be established by the redesignation of Salt Lake County, and Weber County's baseline date would be established by the redesignation of

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**c. Baseline Area.** The baseline area will not be officially determined until the minor source baseline date. The baseline area will then be determined by modeling the area that is impacted by the new source.

**d. Baseline Concentration.** The baseline concentration is the actual emissions of representative of sources in existence on the minor source baseline date. Allowable emissions of sources that were under construction prior to the major source baseline date but were not in operation on the minor source baseline date are added to the baseline concentration.

**e. Increment.** The total increment available for PM10 in a Class II area is 17 $\mu g/m^3$ (annual) and 34 $\mu g/m^3$ (24-hour). Unlike SIP modeling that is based on assumed worst-case conditions (large sources operating at full capacity), the increment consumption calculation is based on actual emissions.

**2. NAAQS modeling.**

a. The source must demonstrate through a modeling demonstration that the $PM_{10}$ or $SO_2$ NAAQS will not be violated.

b. The background level that is used in the modeling is the monitored ambient concentration during the three years preceding the application. The SIP modeling would not be used as the background concentration.

c. The PTE of a new source, or the PTE of a modification is modeled as the contribution of the source.

**3. Ambient monitoring.** There is already an extensive network of ambient monitoring sites for $PM_{10}$ and $SO_2$ along the Wasatch Front. DAQ does not anticipate that additional monitoring data would need to be collected by the source, but that determination would need to be made during the pre-design consultation with the source.